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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/022,965	12/13/2001	Robert J. Crowley	11219.0094-04000	4630

22852 7590 11/17/2010  
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WASHINGTON, DC 20001-4413

EXAMINER
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LAMPRECHT, JOEL

ART UNIT	PAPER NUMBER
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3737

MAIL DATE	DELIVERY MODE
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11/17/2010

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/022,965	<b>Applicant(s)</b> CROWLEY, ROBERT J.	
	<b>Examiner</b> JOEL M. LAMPRECHT	<b>Art Unit</b> 3737	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 31 March 2010.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 39-45 and 47-59 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 39-45 and 47-59 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                    | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 39-45, 47-51, and 53-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mahadevan-Jansen et al in view of Anidjar et al (ULIAD between Malignant and normal Urothelial Cells and Tissues). Mahadevan-Jansen et al disclose a spectrometer device comprising a distal end with light emitting portion (Col 1 Line 35-55, Col 7 Line 5-454), a light detector (Col 13 Line 25-65), an interventional device (Col 6 Line 22-48), a bandpass filter associated with the light detector (Fig 6, Col 12 Line 20-Col 13 line 27), a light source (Col 5 Line 45 – Col 6 Line 15), a lens (Col 6 Line 5-45), the filter as a property of Raman spectroscopy methods (Col 7 Line 5-65), a substrate for disposing the light emitter and detector (Col 6 Line 15-32), a modulator and mirror disposed on the surfaces of the same substrate (Col 12 Line 5-55) for receiving light from the light source whereby the light emitting portion is positioned distally of detection fibers which end proximally of emission fiber (Col 6 Line 65- Col 7 Line 25, Col 7 Line 35-45, Table 1, Figure 5a/b, 6, and 12), a substantially transparent window (Col 4 Line 5-30), an optical device including a lens (Col 12 Line 40 - Col 13 Line 20), filter (Col 12 Line 40 – Col 13 Line 2), mirror (Col 12 line 40 – Col 13 Line 2, and a hologram (Col 13

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Line 3-20). Mahadevan-Jansen et al also disclose connecting the spectrometer to a power source (Table 1, Col 13 – Col 14), measuring optical properties of light from tissue (Col 7 Line 65 – Col 9 Line 57), specifically for characterizing tissue.

Mahadevan-Jansen et al do not teach the use of a UV light range, rather they stay in the IR spectrum.

Attention is paid to the secondary reference by Anidjar, which teaches the use of a UV-spectrum evaluation of spectroscopy using a multifiber catheter (Page 337, Column 1), filters around the UV range (Page 337, Column 1) and cellular tissues to perform an in vitro study of diagnostic capability of spectroscopy for urothelial tumor diagnosis (Page 335-337). It would have been obvious to one of ordinary skill in the art to have adapted the cellular-level in vitro system of Anidjar et al into the in vivo system of Mahadevan-Jansen et al for the purpose of facilitating real-time early detection of urothelial CIS (Page 339).

Claim 52 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mahadevan-Jansen et al in view of Anidjar et al (ULIAD between Malignant and normal Urothelial Cells and Tissues) as applied to claim 51 above, and in further view of Vari (5,503,559).

Mahadevan-Jansen et al in view of Anidjar et al disclose all that is listed above, but fail to mention the production of the window from polystyrene, polycarbonate, or methyl-methacrylate; rather they teach using a transparent Teflon window for the window material.

Attention is directed to the secondary reference by Vari, which teaches the use of PMMA, polystyrene and other silica-core fibers to allow for the transmission of UV light (Col 10 Line 5-50). It would have been obvious to one having ordinary skill in the art at the time of the invention to have constructed the window out of PMMA or polystyrene instead of Teflon to allow for UV light transmission through the windowed section of the miniature spectrometer disclosed by Mahadevan-Jansen et al in view of Anidjar as Teflon and quartz envelopes also allow UV light transmission.

### ***Response to Arguments***

Applicant's arguments filed 3/31/2010 have been fully considered but they are not persuasive. Applicant has argued that Mahadevan fails to teach or suggest the use of a light emission portion at a distal end and detectors disposed proximally of the first surface of a substrate. Taking into account the fact that the definition of the word substrate has already been discussed, Examiner points to Figures 5a/b, 6 and 12, showing that *excitation fibers extend distally of collection fibers* in the invention of Mahadevan. While the elements end proximally at the same point, the distal ends of the detection fibers are proximal of the distal ends of the excitation fiber. This 'stack' substrate thereby incorporates excitation elements distally of the detection elements. It is not just the dielectric coating which is relied upon, but rather the entire optical stack can be considered a substrate as the components thereof comprise electrically conductive and active elements (Substrate: 1. A substance acted upon. - Merriam Webster, 2. a supporting material on which a circuit or other electronics can be formed – Random House).

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOEL M. LAMPRECHT whose telephone number is (571)272-3250. The examiner can normally be reached on 8:30-5:00 Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian L. Casler can be reached on (571) 272-4956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JML

/BRIAN CASLER/

Supervisory Patent Examiner, Art Unit 3737